**Avery Weigh-Tronix**

# FLI 225
## Forklift instrument

# User Instructions

# Daily operation quick reference

Below is a brief overview of how to use this system during a work shift. Complete instructions are covered in the body of this manual.

## Classic Mode

**Classic Mode** simplifies lift truck weighing and keeps the display simple and easy to read.



**Figure 1  FLI 225 Classic Mode Front Panel**

1.  Press ⏻ to turn the instrument on.

2.  Lift the forks off the floor.

3.  Press →0← if not showing zero.

4.  Lift a loaded pallet.

5.  Press ◎ if required.

6.  Repeat steps 3 through 5 until complete.

# Expanded Mode

**Expanded Mode** allows the user to enter more information for record keeping purposes.



**Figure 2  Expanded Mode Front Panel**

1.  Press ⏻ to turn the instrument on.

2.  Key in or scan **OPER** number.

3.  Key in or scan **ID** number.

4.  Key in estimated number of pallets.

*For information on how to key in alphanumeric characters, see Data Entry Procedure on page 16.*

5.  Lift the forks off the floor.

6.  Press →0← if not showing zero.

7.  Lift a loaded pallet.

8.  Press 🖶 if required.

9.  Repeat steps 6 through 8 until complete.

*NOTE: The ID number, OPER number and estimated number of pallets will remain constant until changed.*

# Table of Contents

# 1   General information and warnings

## 1.1   About this manual

This manual is divided into chapters by the chapter number and the large text at the top of a page. Subsections are labeled as shown by the 1 and 1.1 headings shown above. The names of the chapter and the next subsection level appear at the top of alternating pages of the manual to remind you of where you are in the manual. The manual name and page numbers appear at the bottom of the pages.

This manual covers the general user instructions for the FLI 225 instrument for multiple regions worldwide.

### 1.1.1   Text conventions

Key names are shown in **bold** and reflect the case of the key being described. This applies to hard keys and onscreen or soft keys.

Displayed messages appear in ***bold italic*** type and reflect the case of the displayed message.

### 1.1.2   Special messages

Examples of special messages you will see in this manual are defined below. The signal words have specific meanings to alert you to additional information or the relative level of hazard.

*ELECTRICAL WARNING!*
*THIS IS AN ELECTRICAL WARNING SYMBOL.*
*ELECTRICAL WARNINGS MEAN THAT FAILURE TO FOLLOW SPECIFIC PRACTICES OR PROCEDURES MAY RESULT IN ELECTROCUTION, ARC BURNS, EXPLOSIONS OR OTHER HAZARDS THAT MAY CAUSE INJURY OR DEATH.*

*CAUTION!*
*This is a Caution symbol.*
*Cautions give information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.*

*NOTE: This is a Note symbol. Notes give additional and important information, hints and tips that help you to use your product.*

# 1.2   Installation

⚠️ *DANGER: RISK OF ELECTRICAL SHOCK. NO USER SERVICEABLE PARTS. REFER TO QUALIFIED SERVICE PERSONNEL FOR SERVICE.*

## 1.2.1   Safe handling of equipment with batteries

*CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.*

*ATTENTION: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie, remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.*

# 1.3   Routine maintenance

*IMPORTANT: This equipment must be routinely checked for proper operation and calibration. Application and usage will determine the frequency of calibration required for safe operation.*

Always turn off the machine and isolate from the power supply before starting any routine maintenance to avoid the possibility of electric shock.

Make sure that it is placed securely on a flat and level surface.

## 1.4 Cleaning the machine

**Table 1.1 Cleaning DOs and DON'Ts**

| DO | DO NOT |
|---|---|
| Wipe down the outside of standard products with a clean cloth, moistened with water and a small amount of mild detergent | Attempt to clean the inside of the machine |
| | Use harsh abrasives, solvents, scouring cleaners or alkaline cleaning solutions |
| | |

## 1.5 Training

Do not attempt to operate or complete any procedure on a machine unless you have received the appropriate training or read the instruction books.

To avoid the risk of RSI (Repetitive Strain Injury), place the machine on a surface which is ergonomically satisfactory to the user. Take frequent breaks during prolonged usage.

## 1.6 Sharp objects

Do not use sharp objects such as screwdrivers or long fingernails to operate the keys.

## 1.7 FCC and EMC declarations of compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### European Countries

WARNING: This is a Class A product. In a domestic environment, this product may cause radio interference in which the user may be required to take adequate measures.

# Avery Weigh-Tronix

Foundry Lane, Smethwick, West Midlands B66 2LP, England

| | |
|---|---|
| **CE** | **Declaration of Conformity** / **Konformitätserklärung** |
| | **Verklaring van Overeenstemming** / **Dichiarazione di conformità** |
| | **Déclaration de Conformité** / **Declaración de Conformidad** |

| Manufacturer | Avery Weigh-Tronix Limited |
|---|---|
| Type | 1) FLSC-05 & FLI-225 /FLI-425. 2) QTLTSC & FLI-225 ANALOG / FLI-425 ANALOG. |
| No. of EC type approval certificate | UK2862 |

corresponds to the requirements of the following EC directives:

| EMC Directive | 2004/108/EC |
|---|---|
| Low Voltage Directive | 2006/95/EC |
| Non-Automatic Weighing Instruments Directive | 2009/23/EC |
| Machinery Directive | 98/37/EC |

The applicable harmonised standards are:

| EN 45501 : 1994 EN 60950–1 : 2006 | EN 61000–6–3 : 2007 |
|---|---|

Note [1]:
This declaration is only valid if the non–automatic weighing instrument was verified by the manufacturer or with a certificate of conformity issued by a notified body.

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West Midlands B66 2LP, England.
Registered in England No: 595129

| Fabrikant | Avery Weigh-Tronix Limited |
|---|---|
| Type | 1) FLSC-05 & FLI-225 /FLI-425. 2) QTLTSC & FLI-225 ANALOG / FLI-425 ANALOG. |
| Nummer van de Verklaring van EG–typegoedkeuring | UK2862 |

is in overeenstemming met de voorschriften van de volgende EG richtlijnen:

| EMC Richtlijn | 2004/108/EC |
|---|---|
| Laagspanningsrichtlijn | 2006/95/EC |
| Richtlijn niet-automatische weegwerktuigen | 2009/23/EC |
| Machinerichtlijn | 98/37/EC |

Toegepaste geharmoniseerde normen:

| EN 45501 : 1994 EN 60950–1 : 2006 | EN 61000–6–3 : 2007 |
|---|---|

Noot [1]:
Deze verklaring is alleen geldig indien het weegwerktuig door de fabrikant is geverifieerd, of met een Verklaring van overeenstemming, afgegeven door een bevoegde instantie.

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Registered in England No: 595129

| Fabricant | Avery Weigh-Tronix Limited |
|---|---|
| Type | 1) FLSC-05 & FLI-225 /FLI-425. 2) QTLTSC & FLI-225 ANALOG / FLI-425 ANALOG. |
| No. de certificat d'approbation de type CE | UK2862 |

correspond aux exigences des directives CE suivantes :

| Directive CEM | 2004/108/EC |
|---|---|
| Directive Basse Tension | 2006/95/EC |
| Directive pour les instruments de pesage à fonctionnement non automatique | 2009/23/EC |
| Directive sur la machinerie | 98/37/EC |

Les normes harmonisées applicables sont :

| EN 45501 : 1994 EN 60950–1 : 2006 | EN 61000–6–3 : 2007 |
|---|---|

Nota [1] :
Cette déclaration est valide seulement si l'instrument de pesage à fonctionnement non automatique a été vérifié par le fabricant ou avec une attestation de conformité délivrée par un organisme notifié.

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Registered in England No: 595129

| Signature/Name Handtekening/Naam Signature/Nom Unterschrift/Name Firma/Nome Firma/Nombre | *S. Hine* Head of R&D (UK) | Authorised signatory for Avery Weigh-Tronix Limited Namens van Avery Weigh-Tronix Limited Signataire autorisé d'Avery Weigh-Tronix Limited Unterschriftsberechtigter für Avery Weigh-Tronix Limited Firmatorio autorizzato per Avery Weigh-Tronix Limited Firmante autorizado para Avery Weigh-Tronix Limited | | Date Datum Date Datum Data Fecha |
|---|---|---|---|---|
| | | | 9 July 2009 | |

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# Avery Weigh-Tronix

Foundry Lane, Smethwick, West Midlands B66 2LP, England

## CE

**Declaration of Conformity**
**Verklaring van Overeenstemming**
**Déclaration de Conformité**

**Konformitätserklärung**
**Dichiarazione di conformità**
**Declaración de Conformidad**

| Hersteller | Avery Weigh-Tronix Limited |
|---|---|
| Typ | 1) FLSC-05 & FLI-225 / FLI-425.<br>2) QTLTSC & FLI-225 ANALOG / FLI-425 ANALOG. |
| Nr. der EG–Bauartzulassung | UK2862 |

| entspricht den Anforderungen folgender EG–Richtlinien: | |
|---|---|
| EMV-Richtlinie | 2004/108/EC |
| Niederspannungs Richtlinie | 2006/95/EC |
| Waagenrichtlinie für nichtselbsttätige Waagen | 2009/23/EC |
| Maschinenrichtlinie | 98/37/EC |

| Die angewendeten harmonisierten Normen sind: | |
|---|---|
| EN 45501 : 1994<br>EN 60950–1 : 2006 | EN 61000–6–3 : 2007 |

**Anmerkung [1]:**
Diese Erklärung gilt nur, wenn die nichtselbsttätige Waage vom Hersteller geeicht wurde oder in Verbindung mit einer Konformitätsbescheinigung einer benannten Stelle.

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Registered in England No: 595129

| Produttore | Avery Weigh-Tronix Limited |
|---|---|
| Modello | 1) FLSC-05 & FLI-225 / FLI-425.<br>2) QTLTSC & FLI-225 ANALOG / FLI-425 ANALOG. |
| N. di certificato di approvazione di tipo CE | UK2862 |

| è conforme alle caratteristiche previste dalle seguenti direttive CE: | |
|---|---|
| Normativa EMC | 2004/108/EC |
| Normativa per la bassa tensione | 2006/95/EC |
| Normativa per strumenti di pesatura non automatici | 2009/23/EC |
| Direttiva sui macchinari | 98/37/EC |

| Le norme standard armonizzate e nazionali applicate sono: | |
|---|---|
| EN 45501 : 1994<br>EN 60950–1 : 2006 | EN 61000–6–3 : 2007 |

**Nota [1]:**
Questa dichiarazione è valida solamente se lo strumento di pesatura non automatico è stato verificato dal produttore o provvisto di un certificato di conformità rilasciato da un ente riconosciuto.

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| Fabricante | Avery Weigh-Tronix Limited |
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| Tipo | 1) FLSC-05 & FLI-225 / FLI-425.<br>2) QTLTSC & FLI-225 ANALOG / FLI-425 ANALOG. |
| Número del certificado de aprobación de tipo CE | UK2862 |

| conforme a las exigencias de las siguientes directivas CE: | |
|---|---|
| Directiva CME | 2004/108/EC |
| Directiva de baja tensión | 2006/95/EC |
| Directiva para equipos de pesaje no automáticos | 2009/23/EC |
| Directiva sobre máquinas | 98/37/EC |

| Las normas armonizadas en vigor son: | |
|---|---|
| EN 45501 : 1994<br>EN 60950–1 : 2006 | EN 61000–6–3 : 2007 |

**Nota [1]:**
Esta declaración es válida solamente si el equipo de pesaje no automático ha sido verificado por el fabricante o con certificado de conformidad emitido por un organismo notificado.

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Reg. Office: Foundry Lane, Smethwick,
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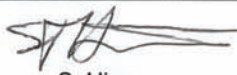Registered in England No: 595129

| Signature/Name<br>Handtekening/Naam<br>Signature/Nom<br>Unterschrift/Name<br>Firma/Nome<br>Firma/Nombre | S. Hine<br>Head of R&D (UK) | Authorised signatory for Avery Weigh-Tronix Limited<br>Namens van Avery Weigh-Tronix Limited<br>Signataire autorisé d'Avery Weigh-Tronix Limited<br>Unterschriftsberechtigter für Avery Weigh-Tronix Limited<br>Firmatorio autorizzato per Avery Weigh-Tronix Limited<br>Firmante autorizado para Avery Weigh-Tronix Limited | | Date<br>Datum<br>Date<br>Datum<br>Data<br>Fecha |
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# 2   Introduction

## 2.1   About the FLI 225

The FLI 225 instrument is part of a system for weighing, storing and transmitting information to peripherals such as a computer system directly from the forklift.

Your instrument will have one of the following configurations:

### Classic Mode with Print

*Classic Mode with Print* is the most general application available. It combines a powerful weighing and printing utility with ease of use.

### Classic Mode with Accumulate

*Classic Mode with Accumulate* adds the ability to accumulate totals and generate reports to the easy-to-use interface and powerful weighing and printing functions.

For more information on either of the Classic Modes, see chapter 3, *Classic Mode*.

### Expanded Mode

*Expanded Mode* adds features that set it apart from the two classic modes. These functions are explained in detail in chapter 4, *Expanded Mode*.

This manual explains the general operation of the **FLI 225**. Most of the functions are the same regardless of instrument configuration. When a function is not available to all modes, the appropriate mode is noted in parenthesis.

## 2.2   Front Panel and Keys

The FLI 225's high-contrast, backlit dot graphic display lets the operator quickly view large weight values in a variety of lighting conditions. The 5 hard keys and 4 softkeys on the front panel of the FLI 225 provide access to all the basic weighing functions as well as access to information, menus, instrument tests and settings. Each key has multiple functions and will be explained.



**Figure 2.1  FLI 225 Classic Mode Front Panel**

The softkeys (F1 - F4) are so called because their functions change as their labels change. Each of the hard keys has specific functions. This table details the functions of the hard keys.

**Table 2.1  Key Definitions**

| Reference | Key Name | Key Function(s) |
|-----------|----------|-----------------|
| 1 | TARE | Tare the weight on the scale for net weighing.<br>*Factory default for this key is OFF and must be enabled for use.* |
| 2 | STANDBY | Turn the instrument on.<br>Put the instrument into standby mode. |
| 3 | SELECT | Toggle Gross, Tare, Net and Transaction views.<br>*Factory default for this function is OFF and must be enabled for use.*<br>Backspace (delete previous character) when in data entry mode. |
| 4 | PRINT | Send data to a printer or other connected device.<br>Store (save) transactions for future download, depending on configuration.<br>Access report menu in certain modes. |
| 5 | ZERO | Zero the instrument to compensate for minor weight changes.<br>Move to the right in data entry mode. |

*Instrument configurations vary and some functions may not be enabled on your instrument. If a function that you require has not been enabled, please contact your Avery Weigh-Tronix distributor or service provider for assistance.*

The following table shows the factory default settings for the FLI 225, for each region.

**Table 2.2  Default Settings by Region**

| Setting | North America (NA) Default | Europe (EU) Defaults |
|---------|---------------------------|----------------------|
| Gravity Compensation | 9.8043 | 9.8043 |
| Calibration Unit | lb | kg |
| Enabled Unit(s) | lb | kg |
| Weight Capacity | 5000 lb | 2500 kg |
| Weight Division | 5 lb | 2 kg |
| Calibration Full Weight | 4000 lb | 2000 kg |
| Calibration Half Weight | 2000 lb | 1000 kg |
| Gross Zero Band | 50 lb (10 divisions) | 20 kg (10 divisions) |
| Over/Under range basis | percentage | divisions |
| Over range | 105% | 9 divisions (i.e. 2518 kg) |
| Under range | 20% | 250 divisions (i.e.-500 kg) |
| Zero range | 100% | 2% |
| Auto print range | 0% (disabled) | 0% (disabled) |
| Separator | decimal point | decimal point |
| Time format | 12 hr (AM/PM) | 24 hr (Military) |
| Date format | MM/DD/YYYY | DD/MM/YYYY |

## 2.3   Display and Annunciators

The FLI 225 has several annunciators which provide the operator with information about the current application.

Throughout this manual, annunciators are typically shown in ***italics*** and in the case they appear. Therefore, ***Gross*** indicates the annunciator for gross weight, etc.

The most common annunciators are explained below.

**Table 2.3  Definition of Annunciators**

| Annunciator | Description |
|---|---|
| ~ | Indicates that the weight is in motion and is not stable. |
| >0< | Gross Zero Band indicates that the instrument is within the zero range. |
| lb | Indicates that the weight displayed is in pounds. |
| kg | Indicates that the weight displayed is in kilograms. |
| ▬ | Indicates a negative weight. |
| Gross | Indicates that the instrument is in gross weight mode. Weight displayed is the gross weight. |
| Net | Indicates that the instrument is in net weight mode. Weight displayed is the net weight. |
| Tare | Weight displayed is the tare weight only. |
| Underload<br>▬ ▬ ▬ ▬ ▬ | Indicates that the scale is outside the gross zero range (under weight). |
| Overload<br>▬ ▬ ▬ ▬ ▬ | Indicates that the scale is overloaded. |
| Over Angle<br>▬ ▬ ▬ ▬ ▬ | Indicates that the scale is tipped (right, left, forward or back) too far. |
| $(_Y)$ | Indicates that the instrument is set to ***FLSC Wireless*** and is communicating wirelessly with the carriage. |
| Y | Indicates that the instrument is set to ***FLSC Wireless*** but wireless communications to the carriage has been interrupted. |
| ▯▮ | Indicates the approximate charge remaining on the battery used for wireless communications from the scale carriage to the instrument. |

## 2.4   Operator Messages

The area below the weight value can display a variety of operator messages such as:

| | |
|---|---|
| ***Printing***: | Data is being transmitted to a peripheral. |
| ***Print Failed: RTZ*** | Instrument must return to zero between printing. |
| ***Print Failed: Overload*** | Instrument could not print. Excessive weight. |
| ***Print Failed: Underload*** | Instrument could not print. Insufficient weight. |
| ***Print Failed: Motion*** | Instrument could not print. Weight was unstable or the scale was in motion. |
| ***Accum Failed: RTZ*** | Instrument must return to gross zero between accumulations. |
| ***Accum Failed: Overload*** | Instrument could not accumulate. Excessive weight. |
| ***Accum Failed: Underload*** | Instrument could not accumulate. Insufficient weight. |
| ***Accum Failed: Motion*** | Instrument could not accumulate because the weight was unstable or the scale was in motion. |
| ***Accum Failed: Negative Wt.*** | Instrument could not accumulate because a negative weight was displayed. |
| ***FLJ 100 Init Failure!*** | Instrument could not communicate with the digital junction box on startup. |
| ***FLJ 100 Comm Failure*** | There is no communication between the digital carriage and the instrument. |
| ***Analog Option Init Failure!*** | Instrument could not communicate with the analog option card on startup. |
| ***No Analog Option Installed!*** | Instrument is set to QTLTSC or QTLTS but the analog option card has not been installed. |
| ***Calibration Required!*** | Contact distributor or service provider. |

## 2.5   Data Entry Procedure

Some screens require you to key in alphanumeric information. In those cases, you will be presented with four softkeys: **Esc, Up Arrow**, **Down Arrow**, **Enter**.
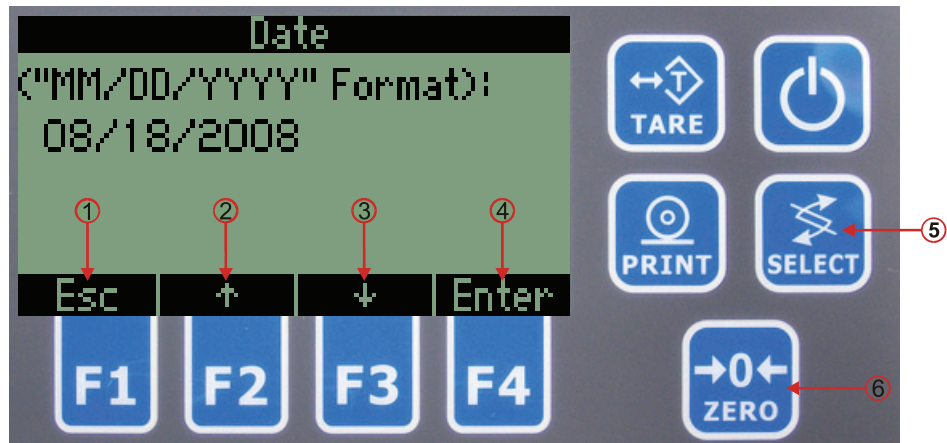


**Figure 2.2   Common Data Entry Keys**

You can key in: 0-9, A-Z, a-z and space. Follow these instructions for data entry. The table below provides a detailed description of Figure 2.2

**Table 2.4   Data Entry Keys Explained**

| Ref # | Key Name | Key Details |
|---|---|---|
| 1 | **Esc** softkey | Press F1 to use the **Esc** softkey. Press the **Esc** softkey to abort. |
| 2 | **Up Arrow** softkey | Press F2 to use the **Up Arrow** softkey. Press the **Up Arrow** softkey to scroll up from zero. |
| 3 | **Down Arrow** softkey | Press F3 to use the **Down Arrow** softkey. Press the **Down Arrow** softkey to scroll backwards. |
| 4 | **Enter** softkey | Press F4 to use the **Enter** softkey. Press the **Enter** softkey to accept an entry. |
| 5 | **SELECT** key | In data entry mode, press the **SELECT** key to backspace and delete the previous character |
| 6 | **ZERO** key | In data entry mode, press the **ZERO** key to move the cursor to the next position (move right). |

## 2.6   FLR 100 Remote Display Option

Figure 2.3 shows the FLR 100 remote display option. This small display with three keys connects to one of the COM ports inside the instrument and must be installed and configured by your Avery Weigh-Tronix service provider.



**Figure 2.3  FLR 100 Remote display option**

This display can be mounted where it is convenient for the operator to see and press the keys.

### Key function

| | |
|---|---|
| **F1** key | Not used at present |
| **PRINT** key | Mimics the function of the **PRINT** key on the FLI 225 instrument |
| **ZERO** key | Mimics the function of the **ZERO** key on the FLI 225 instrument |

# 3 Classic Mode

## 3.1 Overview

Classic with Print and Classic with Accumulate provide powerful tools for weighing and printing while keeping the display easy to read. This section explains the general operation for both classic modes.

## 3.2 Powering the Instrument

If the instrument has been put into standby mode (instrument appears to be off), press and hold the **STANDBY** ⏻ key for approximately one second to restore full power.

The instrument will show an informational screen similar to the one below while completing the boot sequence and will then start in standard operating mode.
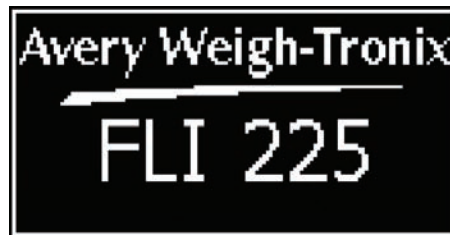


**Figure 3.1  Information Screen**

If there is no activity for four hours, the FLI 225 will automatically enter standby mode. Press and hold the **STANDBY** key for approximately one second to restore full power.

*Please contact your Avery Weigh-Tronix distributor or service provider to change your timeout settings.*

You can manually place the instrument into standby mode. Press and hold the **STANDBY** ⏻ key for approximately one second. Release the key and the instrument will enter standby mode.

*The instrument must be in normal weigh mode for the **STANDBY** key to work.*

## 3.3    Weighing

### 3.3.1    Gross Weighing

Gross weighing is the simplest form of weighing. It is the combined weight of the pallet and its load. The weight is displayed in the selected unit of measure.

1.    Begin with the instrument powered on and the forks off the ground and level.

2.    Press the **ZERO** key if the instrument does not show zero.

3.    Lift the load with the forks.

> The gross weight is displayed on the instrument until the load is removed.
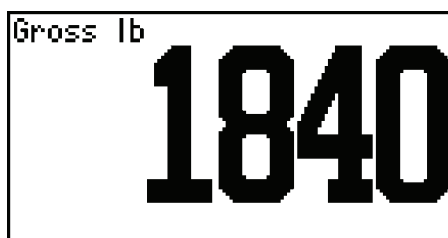


**Figure 3.2  Gross Weight Display**

### 3.3.2    Tares and Net Weighing

Net weighing lets you tare off (subtract) the weight of the pallet so that the weight you see is the weight of the product only. There are two parts to net weighing:

- ● setting the tare
- ● performing the net weighment

This section details both of these items.

#### Setting a Tare

The FLI 225 allows you to subtract the weight of the pallet with the push of a button.

*Instrument configurations vary. If there is no change in the display when you press the **TARE** key, this function has not been enabled. Contact your Avery Weigh-Tronix distributor or service provider if you need this function.*

1.    Begin with the instrument on and the forks off the ground and level.

2.    Press **ZERO** if the scale does not return to zero.

3.    Lift the empty pallet off the ground.

> The gross weight of the pallet will be displayed.

4.    Once the weight is stable, press the **TARE** key.

> The instrument returns to zero and the annunciator changes from **Gross** to **Net**. This tare will remain active until it is cleared.
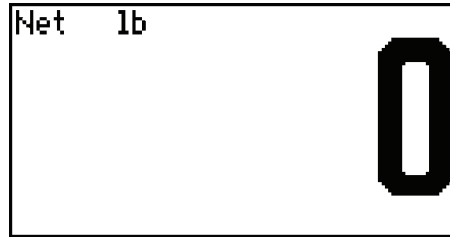


**Figure 3.3  Zero Net Weight**

## Net Weighing

The instructions for net weighing continue from the previous section.

5.    Once the tare has been set, lower the empty pallet to the ground and move the lift truck away from the pallet if necessary.

> The display shows the value of the tare as a negative net weight.

6.    Load the pallet as usual.

7.    Raise the loaded pallet.

> The display shows the net weight of the load.
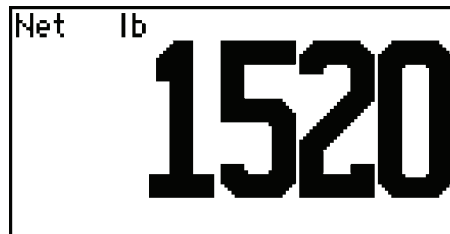


**Figure 3.4  Net Weight Display**

*You can scroll through available display options using the **SELECT** key, if enabled. This allows you to easily change between the Gross, Tare, Net and Transactions displays.Transactions will only display when the displayed weight is zero and the instrument is configured to display them.*

## Clear a Tare

Clearing a tare sets an existing tare back to zero and returns the FLI 225 to gross weigh mode.

1.    Lower the pallet to the floor and move the lift truck away from the pallet.

2. Make sure that the forks are not touching the floor.

> The instrument displays a negative weight equal to the tare while displaying >0<.
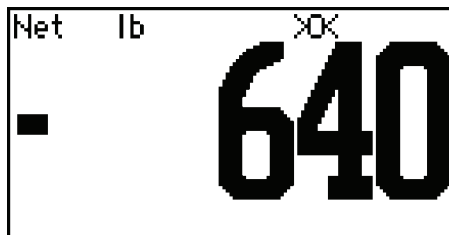


**Figure 3.5  Negative Net Weight with Zero Band Annunciator**

3. Press the **TARE** key.

> The display returns to gross weigh mode and shows zero.



**Figure 3.6  Zero Gross Weight**

## 3.4   Print

You can use the **PRINT** key to print a transaction or a variety of information.

### 3.4.1   Print a Transaction

Depending on configuration, you can print a transaction or send the information to another device. The device must be connected to one of the available COM ports.

1. Perform a weighment.

2. Wait for the weight to stabilize.

3. Press the **PRINT** key.

> The instrument sends the Gross, Tare, or Net information to the printer or other connected device. If the accumulator is active, the transaction is stored.

```
G  1260 lb
```

**Figure 3.7  Sample Printed Transaction**

*The instrument must return to Gross Zero before printing the next transaction.*

### Default Print Format

The default print format (as shown in figure 3.7) uses the following string:

**<SP>I<SP>WWWW.WW<SP><UU><SP><CR><LF>**

where:

**Table 3.1  Definition of print string variables**

| Variable | Definition |
|---|---|
| I = | weight type indentifier (G for Gross, T for Tare or N for Net) |
| SP = | Space |
| W = | Weight character |
| U = | Units character |
| CR = | Carriage Return |
| LF = | Line Feed |

## 3.4.2   Print Accumulator Report
## (Classic w/Accumulate only)

If the accumulate function is active on the FLI 225, you can print the accumulator report and clear the totals.

1.    Press and hold the **PRINT** key for approximately 5 seconds.

The screen will flash and the accumulator report will be sent to the printer or other connected device.

```
GTot         6880 lb
Ntot         6880 lb
TransTot        3
Present Time:9:20 AM
Present Date:08/18/2008
Scale ID: FLS 91373Q
```

**Figure 3.8  Sample Accumulator Report**

2.    Press the **Yes** softkey to clear the totals when prompted or press the **No** softkey to leave the totals.

The totals are cleared and the instrument returns to normal weighing mode.

# 4   Expanded Mode

When the FLI 225 is configured for "Expanded Mode," the instrument operates the same as in Classic Mode with the addition of a few features. For details on the standard functions, please refer to *Classic Mode* .

## 4.1   Overview

Expanded Mode provides the user the option to enter an identification number (ID), an estimated number of pallets (Pallet) and an operator number (Oper). With these options, you can store up to 350 transactions. Each transaction consists of the identification number (such as the PRO # or Bill of Lading #), time, date and net weight. By default, the ID number and Oper number are included when printing transactions.

*If your instrument is configured for Classic Mode and you need the functions available in Expanded Mode, please contact your Avery Weigh-Tronix distributor or service provider.*

### ID

The **ID** number provides a reference for the weight and data collected. It can be any combination of letters and numbers up to 16 characters and can either be scanned in or manually keyed in.

### Pallet

The **Pallet** function lets the user input the estimated number of pallets for a particular shipment.

### Oper

The **Oper** softkey allows an employee or operator to log in to the instrument. It can be any combination of letters and numbers up to 16 characters and can either be scanned in or manually keyed in.

*Regardless of how the information is entered into the instrument, it will stay active until it is changed.*

# 4.2   Data Entry Procedure

Some screens require you to key in alphanumeric information. In those cases, you will be presented with four softkeys: **Esc, Up Arrow**, **Down Arrow**, **Enter**. You can key in: 0-9, A-Z, a-z and space. Follow these instructions for data entry.

1.     Press the **Up Arrow** softkey to scroll up from zero.

        **or**

1.     Press the **Down Arrow** softkey to scroll backwards.

2.     When the character you need is displayed, press the **ZERO** key to move the cursor to the next position (move right) or press the **SELECT** key to backspace and delete the previous character.

3.     After entering all the characters, press the **Enter** softkey to accept or press the **Esc** softkey to abort.

## 4.2.1   Scan in Data

If your system is equipped with a scanner, you can scan in the data for the **ID** and **Oper** fields instead of manually keying it in.

1.     Press the appropriate softkey (*ID, Pallet, Oper*).

*Scanned in data is automatically assigned to the ID field if no softkey is pressed before scanning.*

2.     Scan in the data using an attached scanner.

        A screen similar to the example below appears.



**Figure 4.1  Sample ID number**

3.     Press the **Enter** softkey if necessary.

4.     Begin weighing.

## 4.2.2    Key in Data

If no scanner is available, follow these instructions to key in the data for these fields.

1.    Press the appropriate softkey (***ID, Pallet, Oper***)

A data entry screen similar to the example below appears.

```
┌─────────────────────────────┐
│           Oper:             │
│ Oper:                       │
│                             │
│                             │
│                             │
│                             │
│ Esc   │   ↑   │   ↓   │Enter│
└─────────────────────────────┘
```

**Figure 4.2  Sample Data Entry Screen**

*If the information is not entered within 15 seconds, the display will return to the normal operating view.*

2.    Use the **Up** or **Down Arrow** softkeys to scroll in the data. Depending on the field, you can enter 0-9, A-Z or a-z.

3.    Press the **ZERO** key to advance one position to the right or press the **SELECT** key to backspace and delete one character.

4.    After entering the information, press the **Enter** softkey to accept and save or the **Esc** softkey to exit without saving.

*A dash (-) or a decimal point (.) may appear when keying in the pallet information, however it is not possible to enter a negative or decimal value in this field.*
*A blank space is available for the ID and Oper fields.*

.

```
┌─────────────────────────────┐
│           Oper:             │
│ Oper: 049000006759_         │
│                             │
│                             │
│                             │
│                             │
│ Esc   │   ↑   │   ↓   │Enter│
└─────────────────────────────┘
```

**Figure 4.3  Sample Completed Data Entry Screen**

## 4.3   Report Printing

When the FLI 225 is configured for Expanded Mode, it can transmit a variety of reports. The details of these reports are explained in this section.

### 4.3.1   Access Report Menu

In order to print the reports, you must enter the **Report Menu**.

1.    Press and hold the **PRINT** key for approximately five seconds.

The screen flashes.

2.    Release the **PRINT** key.

The **Report Menu** is displayed.
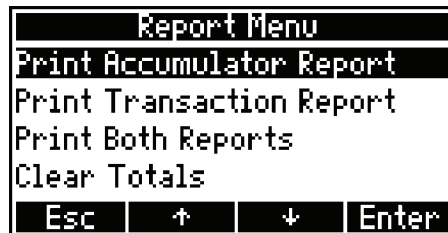


**Figure 4.4  Report Menu**

3.    Press the **Esc** softkey to return to operator mode when finished.

### 4.3.2   Print Accumulator Report

The accumulator report lets you see valuable information associated with multiple transactions. Instructions for printing the accumulator report follow.

1.    From the **Report Menu**, press the **Up** or **Down Arrow** softkey to highlight **Print Accumulator Report**.

2.    Press the **Enter** softkey to send the accumulator report to the printer or other connected device.



```
ID: 1A6Z097755
Oper: 1yG44
Last Transaction
Time:10:26 AM
Last Transaction Date:
08/18/08
Accumulated Weight:6260 lb
Actual Number of Pallets:3
Estimated Number of
Pallets:3

Present Time:10:26 AM
Present Date:08/18/08
Scale ID:FLS 91373Q
```

**Figure 4.5  Sample Accumulator Report**

### 4.3.3   Print Transaction Report

The transaction report gives you a summary of all transactions at a glance. Unlike the accumulator report, the transactions are not totalized.

*In Expanded Mode, the FLI 225 can store up to 350 total transactions. This is dependent on the number of IDs stored. Therefore, if there are two stored IDs, the maximum number of transactions is 175.*

1.   From the **Report Menu**, press the **Up** or **Down Arrow** softkey to highlight *Print Transaction Report*.

2.   Press the **Enter** softkey to send the transaction report to the printer or other connected device.

```
Present Time :  9:33 AM
Present Date : 12/14/07
Scale ID: FLS 91373Q
ID: 1A6Z097755
Oper: 1yG44
Transaction Time        :  9:22 AM
Transaction Date        : 12/14/07
Transaction Weight      :    715 lb

ID: 1A6Z097755
Oper: 1yG44
Transaction Time        :  9:32 AM
Transaction Date        : 12/14/07
Transaction Weight      :   2140 lb
```

**Figure 4.6   Sample Transaction Report.**
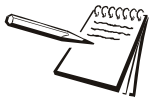
*You can print both reports on one ticket by selecting the **Print Both Reports** option from the Report Menu.*

### 4.3.4   Clear Totals

Clearing the totals resets the accumulator and transactions to zero.

1.   From the **Report Menu** screen, use the **Up** or **Down** arrow key to highlight the *Clear Totals* option.

2.   Press the **Enter** softkey.

3.   Press the **Yes** softkey to confirm deletion of totals or **No** to exit without clearing totals.

The totals are cleared and the instrument returns to the **Report Menu**.

# 5   User Management
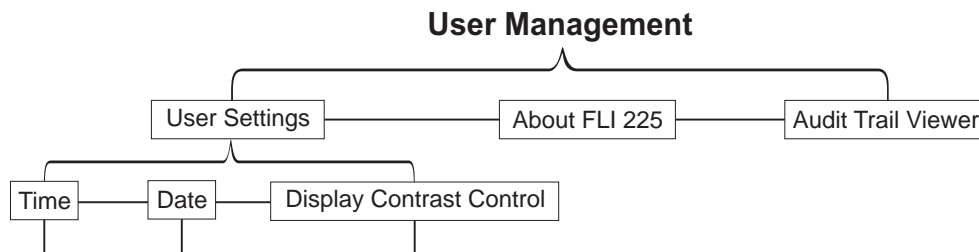


**Figure 5.1  User Management**

## 5.1   Overview of User Management

Entering password 111 provides access to the set of menus known as **User Management** and is divided into three modules.

### User Settings

The **User Settings** module lets you set the **Time**, **Date** and the **Display Contrast**. For more information, see *User Settings on page 31*.

### About FLI 225

This module shows you the revision and part number of the firmware. For more information, see *View Part Number and Firmware Data on page 34*.

### Audit Trail Viewer

This module displays a list of items that have been changed on the instrument and the dates and times of the changes. This list cannot be changed or deleted but it can be printed if necessary. For more information, see *Audit Trail Viewer on page 34*.

### Audit Trail Counter

This module shows the number of times the calibration information has changed.

## 5.2  Access *User Management*

1.  From normal operating mode, press and hold the **SELECT** key for approximately five seconds.

    The screen will flash to indicate when to release the key.

2.  Release the **SELECT** key.

    The screen prompts you for a password.

```
┌─────────────────────────┐
│        Password         │
│ ? _                     │
│                         │
│                         │
│                         │
│ Esc  │  ↑  │  ↓  │Enter │
└─────────────────────────┘
```

**Figure 5.2  Password Screen**

*If a password is not entered within 15 seconds, the display will return to the normal operating view.*

3.  Key in the password 111.

*When entering the password, the numbers will be visible as you scroll through them but will change to asterisks (\*) once you move to the next space*

.

```
┌─────────────────────────┐
│        Password         │
│ ? *1                    │
│                         │
│                         │
│                         │
│ Esc  │  ↑  │  ↓  │Enter │
└─────────────────────────┘
```

**Figure 5.3  Password Entry in Progress**

4.   Press the **Enter** softkey.

   The display shows the ***User Management*** main menu and available modules.



**Figure 5.4 "111 Menu"**

5.   Use the **Up** or **Down Arrow** softkeys to scroll through the available options.

6.   Press the **Enter** softkey to select a highlighted option.

7.   Press the **Esc** softkey to exit ***User Management*** and return to normal operating mode.

## 5.2.1   User Settings

The ***User Settings*** menu allows the operator to change the time, date and contrast as explained in the following sections.

1.   From the ***User Management*** heading, press the **Up** or **Down Arrow** softkeys as necessary to highlight ***User Settings***.

2.   Press the **Enter** softkey.

   The configurable options are displayed.
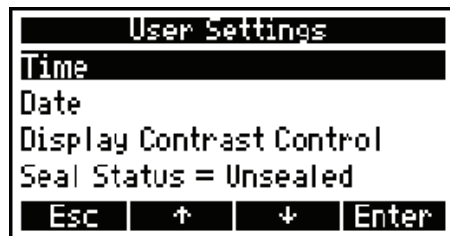


**Figure 5.5  User Settings**

3.   Press the **Up** or **Down Arrow** softkey to highlight an option.

4.   Press the **Enter** softkey to select the highlighted option.

5.   Press the **Esc** softkey to exit ***User Settings*** and return to ***User Management***.

### Set the time

Regardless of the format that the time is displayed, you must enter the time in 24 hour format. So for 5:05 p.m., enter the time as 17:05.

1.   From the ***User Settings*** module, press the ***Up*** or ***Down Arrow*** softkey as necessary to highlight ***Time***.

2. Press the **Enter** softkey.

The time is displayed in real time, 24 hour format.
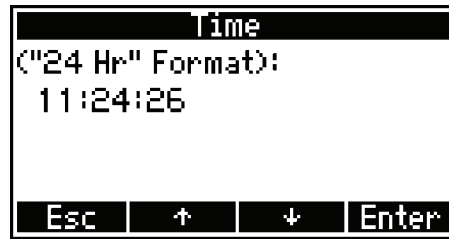


**Figure 5.6  Time Menu**

3. Repeatedly press the **Up** or **Down Arrow** softkey until the first digit of the hour is displayed. (In the example above, the number one.)

*The current time will no longer be visible once you begin scrolling in the new value. If you make a mistake, press SELECT to backspace and delete one character or press the Esc softkey to exit without saving.*

4. Press the **ZERO** key to move to the next position.

5. Repeatedly press the **Up** or **Down Arrow** softkey until the second digit of the hour is displayed. (In the example above, the number one.)

The hour is set.

6. Repeat steps 3 through 5 until the time is complete.

*If you do not know the seconds value, you can go to step 7 after entering the minutes. The seconds value will continue from when you started.*

7. Press the **Enter** softkey to save the changes and return to the *User Settings* screen.

8. Press the **Esc** softkey to exit and return to *User Management*.

9. Press the **Esc** softkey to exit *User Management*.

The instrument saves the changes, powers off and restarts in normal operating mode.

**Set the date**

1. From the *User Settings* module, press the *Up* or *Down Arrow* softkey as necessary to highlight *Date*.

2.    Press the **Enter** softkey.

The stored date is displayed.

```
┌──────────────────────────────┐
│           Date               │
│("MM/DD/YYYY" Format):        │
│  08/18/2008                  │
│                              │
│                              │
│ Esc  │  ↑  │  ↓  │ Enter     │
└──────────────────────────────┘
```
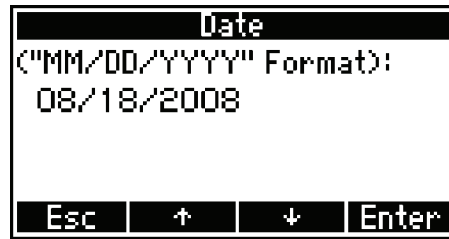
**Figure 5.7  Edit Date Screen**

*The current date will no longer be visible once you begin scrolling in the new value. If you make a mistake, press SELECT to backspace and delete one character or press the Esc softkey to exit without saving.*

3.    Repeatedly press the **Up** or **Down Arrow** softkey until the first digit of the month is displayed. (In the example above, the number zero.)

4.    Press the **ZERO** key to move to the next position.

5.    Repeatedly press the **Up** or **Down Arrow** softkey until the second digit of the month is displayed. (In the example above, the number eight.)

The month is set.

6.    Repeat steps 3 through 5 until the date is complete.

7.    Press the **Enter** softkey to save the changes and return to the *User Settings* screen.

8.    Press the **Esc** softkey to exit *User Settings*.

9.    Press the **Esc** softkey to exit *User Management*.

The instrument saves the changes, powers off and restarts in normal operating mode.

## Change Display Contrast

To allow for various lighting environments, you can adjust the display contrast settings.

1.    From the *User Settings* module, press the *Up* or *Down Arrow* softkey as necessary to highlight *Display Contrast*.

2.    Press the **Enter** softkey.

```
┌──────────────────────────────┐
│    Display Contrast    ↓     │
│ 1                            │
│ 2                            │
│ 3                            │
│ 4                            │
│ Esc  │  ↑  │  ↓  │ Enter     │
└──────────────────────────────┘
```

**Figure 5.8  Sample Display Contrast Screen**

3.    Select a value between 1 and 5 using the **Up** or **Down Arrow** softkeys.
      (Default setting is 3.)

4.    Press the **Enter** softkey to accept and save the change.

      The value is changed and the display returns to the ***User Settings***
      screen.

5.    Exit ***User Settings***.

6.    Exit ***User Management***.

      The instrument saves the changes, powers off and restarts in normal
      operating mode.

## View Part Number and Firmware Data

When you select the **About FLI 225** option, the instrument briefly shows the current
firmware version and then the part number for the instrument. This information may be
useful for support personnel.

1.    From the ***User Management*** heading, press the ***Up*** or ***Down Arrow*** softkey as
      necessary to highlight ***About FLI 225***.

2.    Press the **Enter** softkey.

      After displaying this information, the FLI 225 returns to the ***User
      Management*** screen.

3.    Press the **Esc** softkey to return to normal operating mode.

## Audit Trail Viewer

The ***Audit Trail Viewer*** lets you view details about the number of times the scale has
been configured and the details of these configurations. This information may be useful
when communicating with authorized service personnel or weighing certification
inspectors. You can view the dates and times of these changes or select an entry to
view more details for that entry.

## View the Audit Trail

1.    Access the ***User Management*** screen. See *Access User Management*
for details.

2.    Press the **Down Arrow** softkey two times to highlight ***Audit Trail Viewer***.

3.    Press the **Enter** softkey.

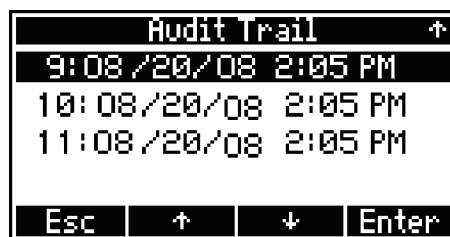      A list of dates and times is displayed. This is the general view of the
      audit trail.



**Figure 5.9  Sample Audit Trail**

### Print the Audit Trail

While viewing the audit trail, press the **PRINT** key to send the report to a printer, PC running HyperTerminal or other connected device.

```
Audit Trail Report
Present Time :  3:07 PM
Present Date :  08/20/2008
Country Code: North America
Installation ID: East ward
Fork Lift ID: 948C0
Scale ID: FLS 91373Q
Device Name: D05
––––––––––
   1: 08/20/08  2:05 PM
Tare Enable
Old: Off
New: On

   2: 08/20/08  2:05 PM
kg Enable
Old: On
New: Off
```

**Figure 5.10  Sample Audit Trail Report**

### View Audit Trail Record

To view a specific record or entry in the audit trail, continue with the following instructions.

4.  From the *Audit Trail Viewer*, press the **Up** or **Down Arrow** softkeys to select the record.

5.  With the correct entry highlighted, press the **Enter** softkey.

    The details for that record display.

```
┌─────────────────────────┐
│    Audit Trail Record   │
│ 11: 08/20/08 2:05 PM    │
│ kg Enable               │
│ Old:  On                │
│ New:  Off               │
│  Esc            Enter   │
└─────────────────────────┘
```

**Figure 5.11  Sample Audit Trail Record**

6.  Press the **Enter** or **Esc** softkey to return to the *Audit Trail Viewer* when finished.

### Exit Audit Trail Viewer

7.  From the *Audit Trail Viewer*, press the **Esc** softkey.

    The instrument returns to the *User Management* options.

8.  Press **Esc** to exit to normal operating mode.

### Audit Trail Counter

When you select the ***Audit Trail Counter*** option, the instrument shows the number of times the system has been calibrated. This information may be useful for support personnel. This information can not be altered.

1.  From the ***User Management*** heading, press the **Up** or **Down Arrow** softkey as necessary to highlight ***Audit Trail Counter***.

2.  Press the **Enter** softkey.

    The FLI 225 displays the current audit count.

3.  Press the **Enter** or **Esc** softkey to return to the ***User Management*** screen.

# Daily Inspection Checklist for Forklift Scale

This list covers digital (wired and wireless) and analog carriages.

**Mechanical**

❑ Check scale carriage for loose, worn, bent, broken or missing components.

❑ Inspect forks for damage.

❑ Check locking pins on forks for proper function.

❑ Make sure wire egress and junction box guards are fastened properly.

❑ Make sure junction box cover on analog scale is in place with all fasteners.

❑ Check center pin located on top of back carriage for wear. Replace if edges are worn, bent, broken or missing.

❑ Check that the fastener(s) for the center pin is in place.

❑ Check clamp fasteners at the bottom of scale carriage.

❑ Check Weigh Bar fasteners on back of scale carriage.

❑ Make sure instrument mounting is secure.

❑ Check instrument isolation mounts are not loose or cracked.

❑ Check and adjust the forklift chain so the heels of the forks have 1/2" to 1" of clearance from the floor when the carriage is down and the mast is vertical.

**Electrical**

❑ Make sure the power cable to the instrument is routed and fastened out of harms way.

❑ Tighten all cable connections at the instrument.

❑ Inspect that all cable clamps and cable ties are secure.

❑ Inspect the power cable to the instrument for nicks, cuts or wear.

❑ If the coiled cable between the scale carriage and instrument is stretched, readjust its attachment to remove any drooping.

❑ Check the instrument is active with applied power.

❑ Make sure cable connections from attached peripheral devices are tight.

**Scale System**

❑ Check battery pack charge for wireless scale carriage to instrument.

❑ Make sure the instrument will show zero weight with forks raised, empty and upon pressing the **ZERO** key.

❑ Apply a load to the scale to make sure the instrument is receiving a weight value from the scale carriage.

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**www.standardscale.com**

Avery Weigh-Tronix